II. Remarks

The Official Action of January 6, 2010 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-16 are pending in this application.

Claims 1-4, 7, 8, 10 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0039462 to Chen and in further view of U.S. Patent No. 7,051,337 to Srikantan et al.

Claims 5, 6, 12 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chen and in view Srikantan et al. and further in view of U.S. Patent No. 5,896,099 to Yamauchi and Official Notice.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Chen and in view Srikantan et al. and further in view of Poon et al. (*Performance of Buffer-Based Request-reply Scheme for VoD Streams Over IP Networks*, 2000).

Claims 14 and 15 rejected under 35 U.S.C. §103(a) as being unpatentable over Chen and in view Srikantan et al. and further in view of Zdepski et al. (*Statically Based Buffer Control Policies for Constant Rate Transmission of Compressed Digital Video*, June 1991) and Jo et al. (*Synchronized One-to-Many Media Streaming with Adaptive Playout Control*, 10 December 2002)

For the reasons set forth below, it is submitted that each of the pending claims are allowable over the prior art of record and therefore, the outstanding rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Chen as teaching:

... analog input system that uses an analog signal input terminal (Chen: Figure 2, item 28 depicts analog mic input terminal as an option) to convert an analog signal into a digital signal and send the converted digital signal to a host computer via a network (Chen: Figure 3 depicts the sound card for receiving digital signals; Figure 7 depicts the wireless mic; Figure 6 depicts a device that handles both input and output analog processing; See also [0021] and abstract), wherein
the analog signal input terminal (Chen: Figure 7, item 29 depicts the mic adapter) comprises:
an analog signal input unit (Chen: Figure 7, item 80 depicts the analog input port);
an NO converter for converting the analog signal into a digital signal (Chen:Figure 7, item 82);
a network controller for controlling data transmission and reception (Chen: Figure 7, item 86);
a terminal-side connection establishing unit for establishing two connections with the host computer, these being an inbound connection and an outbound connection (Chen: Figure 7, items 85 and 86; Figure 6, items 78 and 74; See also [0027] which provides for bidirectional communication between the device and the host sound card);
a control signal processing unit for receiving control signals from the host computer (Chen: [0027] provides for receiving control signals from the host computer); a signal transmitting unit for sending digital signals (Chen: Figure 7, items 85 and 86; Figure 6, items 75 and 78; See also [0027]); and wherein
the host computer comprises at least:
a network adapter for controlling data transmission and reception (Chen: Figure 3, items 46 and 40);
a host-side connection establishing unit for establishing two connections, that is, an inbound connection and an outbound connection to and from the analog signal input terminal (Chen: Figure 3, item 46 depicts a transceiver which inherently transmits and receives; Figure 6 and [0027] provide the remote device can handle inbound and outbound data, providing the host can as well);
a control signal processing unit for sending control signals (Chen: Figure 3, items 44 and 48);
an application processing unit for executing an application and allowing the application to use the said digital signals (Figure 3, items 24 and 30; See also [0018]).

The Examiner concedes that:

Chen does not teach wherein the connections are Internet protocol socket connections;

wherein the inbound socket connection is for receiving control signals from the host computer;

wherein the outbound socket connection is an independent socket connection for sending digital signals to the host computer;

wherein the control signals are related to at least a start request and a stop request;

wherein the digital signals are transmitted based on received control signals; or wherein the host computer has an IP connection disconnecting unit for disconnecting the inbound socket connection and the outbound socket connection.

The Examiner has accordingly relied upon Srikantan et al. as teaching:

the connections are Internet protocol socket connections (Srikantan: Figure 2; col 5, lines 48-55);

wherein the inbound socket connection is for receiving control signals from the host computer (Srikantan: col 5, lines 19-37; col 6, lines 47-58; claim 1 "for each of the multiple clients, a separate control socket configured to receive media stream command events .. "; provides for separate control socket connection);

wherein the outbound socket connection is an independent socket connection for sending digital signals to the host computer (Srikantan: col 6, lines 47-58; claim 1 "a single delivery socket configured to stream the media .. "; provides for separate delivery socket connection);

wherein the control signals are related to at least a start request and a stop request (Srikantan: col 5, lines 19-47 for commands);

wherein the digital signals are transmitted based on received control signals (Srikantan: col 5, lines 17-47); and

wherein the host computer has an IP connection disconnecting unit for disconnecting the inbound socket connection and the outbound socket connection (Srikantan: col 5, lines 38-47 for teardown closing sockets).

In combining the teachings of Chen and Srikantan et al. the Examiner takes the position that:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Srikantan for using separate sockets for control commands and streaming data. The teachings of Srikantan, when implemented in the Chen system, will allow one of ordinary skill in the art to control processing and transmission of multiple remote devices. One of ordinary skill in the art would be motivated to utilize the teachings of

Srikantan in the Chen system in order to efficiently manage network connections in a scalable manner.

Chen is directed to a multi-channel wireless audio system that uses a sound card. The sound card includes a sound chip that processes sound and joystick signals and outputs analog signals to a multiplexer 36 in a signal broadcasting circuit 32 that is also provided on the sound card.

The multiplexer 36 sends one audio signal at a time (selected by sampling and control circuit 44) to analog/digital convertor 38 which sends digital signals to processor 40 whereat channel identifiers are added to the digital signals which are transmitted by transceiver 46 to speaker modules 34.

Signals from a microphone 28 are received by the sound card transceiver 46, sent through processor 40 to a digital/analog convertor, and to sound chip 24 whereat the microphone signals are processed with the audio signals.

Signals form a joystick 26 are likewise received by the sound card transceiver 46, and sent through processor 40 to joystick control 48.

Srikantan et al. is directed to a media streaming server.

At column 1, lines 22-25 Srikantan et al. discloses that:

This invention relates to the field of computer systems. More particularly, an apparatus and methods are provided for handling events received at a server socket that may be shared among multiple client connections.

Srikantan et al. goes on to explain:

A computer system creates and uses sockets to handle communications with other computer systems. Some systems, such as servers, are configured to establish a large number of sockets because of the number of other computer systems (e.g., clients) with which it must communicate. A computer server may even set up and dedicate multiple sockets for each client system that it

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communicates with, because each socket may be configured with limited functionality, such as to handle only one type of connection, handle only one communication protocol, dispatch only one type of task, etc.

Srikantan et al.'s invention is directed to providing "for sharing a server's processing capability (e.g., in the form of execution threads) among multiple sockets through which the server communicates with clients or other computer systems."

This is accomplished by apportioning server sockets into multiple collections, with each collection being allocated one or more threads.

The teachings of Srikantan et al. not sufficiently related, or at all applicable, to Chen.

In this regard, the sound card of Chen transmits audio signals that include channel identifiers. Each speaker module as well as the joystick includes a channel selector which identifies a selected audio channel using the channel identifiers.

In this regard, Chen teaches:

Although the joystick 26 and all speaker modules 34 will receive the transmitted wireless signals, only devices with a proper identifying code will be able to process signals containing this code. (Paragraph [0023]).

Thus, Chen only requires a single transceiver.

Inasmuch as Srikantan et al. requires multiple sockets for the number of computer systems (e.g. clients) with which it must communicate (Srikantan et al., column 1, lines 30-31) and/or the number of different client media stream control functions that are required Srikantan et al., column 1, lines 38-46), a large number of sockets are required to handle the communication and media streaming.

However, the issues and concerns of Srikantan et al. are not at all applicable or relevant to Chen as noted above.

Contrary to the Examiner's opinion, applicants submit that Srikantan et al. is not in a "similar field of endeavor" as Chen.

The Examiner has taken the position that:

It would have been obvious to modify Chen:

...to utilize the teachings of Srikantan for using separate sockets for control commands and streaming data.

The Examiner's stated motivations for such a modification are:

1) "when implemented in the Chen system, will allow one of ordinary skill in the art to control processing and transmission of multiple remote devices," and

2) ...in order to efficiently manage network connections in a scalable manner.

Chen does not require separate sockets for control commands and streaming data.

Chen merely requires a single transceiver and includes channel identifiers so that audio signals can be transmitted to all the speaker modules (and joystick), each of which includes a channel selector which identifies a selected audio channel using the channel identifiers.

The modification proposed by the Examiner is unnecessary and overcomplicates Chen and as such is not at all obvious within the statute.

The Examiner's stated motivation for modifying Chen is likewise unfounded.

The Examiner states that: "when [separate sockets for control commands and streaming data are] implemented in the Chen system, will allow one of ordinary skill in the art to control processing and transmission of multiple remote devices.

Chen already controls the operation of the speaker modules and joystick without the need of separate sockets for control commands and streaming data.

Thus there is no foreseen benefit or motivation which renders the Examiner's proposed modification of Chen obvious.

The Examiner further states that motivation for the modification of Chen is "in order to efficiently manage network connections in a scalable manner."

In contrast to Srikantan et al., all Chen needs to do to scale up the disclosed system is to include additional channel identifiers in the transmitted audio signals.

Scaling up by providing separate sockets for control commands and streaming data (as in the case of Srikantan et al.) is actually contrary to the teachings of Chen and over complicates Chen, without providing any particular benefit.

Based upon the above, it is submitted that Chen and Srikantan et al. are not properly combinable under 35 U.S.C. §103.

The Examiner has relied upon Yamauchi as teaching the use of a header field in a digital signal.

The Examiner has relied upon Poon et al. as teaching buffer areas.

Zdepski et al. as been relied upon by the Examiner as teaching a buffer, monitoring the capacity of the buffer, and synchronization control unit.

Jo et al. has been relied upon as teaching synchronized played-back signals.

The Examiner's further reliance upon each of Yamauchi, Poon et al, Zdepski et al. and Jo et al.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as

required under 35 U.S.C. §103 to establish a prima facie case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

Conclusion

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 23-1925 and please credit any excess fees to such deposit account.

Respectfully submitted,

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